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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/639,940	08/13/2003	Peter H. Chang	CPE-0005	7251

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EXAMINER
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HAILU, TADESSE

ART UNIT	PAPER NUMBER
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2173

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/21/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/21/2007.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/639,940	<b>Applicant(s)</b> CHANG, PETER H.	
	<b>Examiner</b> Tadesse Hailu	<b>Art Unit</b> 2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This Office Action is in response to the patent application filed on August 13, 2003.
2. The Information Disclosure Statement submitted on October 12, 2004 has been considered and entered into the file.
3. The pending claims 1 through 20 are examined and rejected herein as follow.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 4, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ezekiel et al US Pat No. (5,625,783).

The current invention relates in general to systems and methods for enabling ordinary users of computers to generate their own menus, and in particular systems and methods for enabling ordinary users to create and

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update their own customized menu system which has a main menu and, if desired, multiple levels of submenus, each with multiple items, each with the ability to launch programs, automatically open selected files and/or execute certain commands associated with those launched programs (Field Of The Invention). Similarly, Ezekiel et al US Pat No. ("Ezekiel") provides a method and system by which a computer can automatically and dynamically construct user interface menus "on the fly" during execution of a program. For example, the computer can reconfigure displayed menus responsively to a change in the operating mode of the program or selection of a new active window type. Furthermore, the invention provides seamless integration of new menu items into an existing set of menus when new software components are added to an existing program. Thus the invention facilitates the development of add-on software for application programs (Ezekiel, Summary Of the Invention).

Consequently, what is claimed in the current invention is also described and anticipated by Ezekiel as follows.

With regard to claims 1, 18 and 20:

Ezekiel discloses provides a method, computer program product and system by which a computer can automatically and dynamically construct user interface a complete menu hierarchy including a menu bar, menus, and submenus, if any, in which the commands from the various command tables

are organized according to their display groups "on the fly" during execution of a program.

Furthermore, Ezekiel provides seamless integration of new menu items into an existing set of menus when new software components are added to an existing program. Thus Ezekiel facilitates the development of add-on software for application programs (column 3, lines 10-21).

Ezekiel further describes that the constructed menu can be manipulated or modified by the user. For example, the user can have open a source code editor window, various types of debugging windows, and various types of resource editor windows, which are used, for example, to control the appearance of the user interface of the software program being developed (column 4, lines 11-26).

The software of System 200 includes an operating system 250 and an application program 260 and can further include one or more add-on software components (DLL 271, 272 designed to operate in conjunction with application program 260 (column 5, lines 23-36). Ezekiel further describes viewing the menu and submenus using GUI 220 on the visual display 221, wherein the user may select and modify one or more of the constructed menu and submenus (if the menu has one).

Regarding the claimed first, second third and fourth components, Ezekiel describes several components. A processor (CPU) in the computer system executes an application program (260) made up of a number of components,

FIG. 3B shows the relationships among objects used to represent various software components in application program 260. Each component of the application program accomplish or operable a specific task, such as constructing the user interface with a complete menu hierarchy including a menu bar, menus, and submenus, wherein the GUI includes modifiable menu/submenu by the user, wherein user will be able to choose the modifiable menu/submenu and edit, rename it as to be user-defined menu/submenu. During or at the end of the menu editing and construction processes, the system will be able to update and store (column 7, lines 38-67) any change made by the user. Furthermore, Ezekiel facilitates automated menu construction by appropriate support structures, as shown in FIGS. 3A-3B.

With regard to claim 3:

Ezekiel further describes that one of the component (or package) in the application program 260 operable to allow a user to create at least a plurality of individual menu items associated with respective user-selected programs to be launched, with each such menu item being operable at runtime to perform a launch of its respective program by selection of the menu item (column 3, lines 64-column 4, lines 10).

With regard to claim 4:

Ezekiel further describes that one of the component (or package) in the application program 260 further arranged to enable the user to specify, in

conjunction with a menu item and the program to be launched that is associated therewith, at least one file that is to be automatically opened when the program to be launched is executed upon selection of the menu item (column 4, lines 11-54).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezekiel in view of Morris et al (US Pat No. 5,877,966)

With regard to claims 2 and 19:

Ezekiel discloses one of the components in the application program 260 is operable to access at least a plurality of files normally stored in the storage Locations, the files including at least one command table (command map file) (e.g., 351, 361 and 363) and at least one template object ((e.g., 370, 380, and 390, Fig. 3B). Ezekiel further describes that the command map file is arranged to store a plurality of operating commands and a set of menu representative items or shortcut items for referencing certain ones of the

operating commands; and the template object store data that is referenced as part of the process of creating and displaying a menu (column 7, lines 31-67). Ezekiel however does not describe template object as being menu configuration. Morris, on the other hand describes this shortcoming. Morris discloses a "configurator generator") that allows the user to create, modify, or delete a configurator using templates (Abstract).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of configurator generator cited by Morris with template object of Ezekiel. The suggestion / motivation for doing so would have been to provide a more simplified and easier of constructing user-customized configurator. By creating an easy-to-use graphical interface, Ezekiel will be able to avoid the requirement of utilizing expensive programmers to create configurators. Another advantage of Morris is the ease of modifying existing configurators (column 3, lines 34-51). Therefore, it would have been obvious to combine Ezekiel with Morris to obtain the invention as specified in claims 2 and 19.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ezekiel in view of Starr (2002/0065818).

Ezekiel discloses a table (Fig. 3b), wherein the operating commands associated with menu items are stored in said table arranged in array manner. Ezekiel however does not explicitly call for "dynamic array". Starr on the other hand describes such limitation (pars. 86-87 and 89). Starr discloses a



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dynamic Application Generator (DAG) system including a Repository of Application Knowledge (RAK) tables that enable user-created personalization and customization features in a Rapid Application Development Environment (RADE). Starr also discloses a dynamic array as recited in the claim. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the dynamic array aspect of Starr's with tables of Ezekiel. The suggestion / motivation for doing so would have been to provide dynamically generating any business application that is specified in a set of tables (par. 5). Therefore, it would have been obvious to combine Ezekiel with Starr to obtain the invention as specified in claim 5.

7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezekiel in view of Pazandak et al (7,027,975).

While Ezekiel discloses launching other application programs, but launching launch an Internet browser, and enable the user to selectively specify if desired a web page to be opened in connection with a particular menu item upon the launch of the Web page is not discloses. Pazandak, on the other hand disclose such limitation. Pazandak discloses a menu item or hyperlink in connection with user selected menu item launching Internet browser program (column 41, lines 11-23). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the lunching of application (web page) from external source, by doing so the system of Ezekiel will be able to incorporates external rich data to his/her that

are accessible by the user. Therefore, it would have been obvious to combine Ezekiel with Pazandak to obtain the invention as specified in claims 6 and 7.

8. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezekiel in view of Pruett et al (5,778,389).

Ezekiel discloses one of the component in the application program 260 is operable to permit a user to prepare menu listing or directories, Ezekiel, however does not describe a user preparing directories to be merged or merged recursively, and copying menu files which have identical names. Pruett, on the other hand discloses the above limitations. Pruett discloses a method and system for synchronizing computer file directories. Pruett also describes a user merging directories to be merged or merged sequentially, and copying menu files which have similar names (column 2, 1-29). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Pruett's method and system for synchronizing computer file directories with Ezekiel's menu construction and management. The suggestion /motivation for doing so would have been to automatically synchronizing the target and source menu directories and accomplish synchronization efficiently and eliminate redundant copying of data from the source menu directory to the target directory (column 2, lines 21-29). Therefore, it would have been obvious to combine Ezekiel with Pruett to obtain the invention as specified in claims 8 and 9.

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9. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezekiel in view of Lewak et al (6,826,566)

With regard to claims 13-17:

While Ezekiel discloses a menu generation system including one or more application program having one or more components, but Ezekiel does not disclose the one or more operable to search strings from a source file by storing the searched strings in a hash array with each string as a key; operable to create a line object for each searched string, and wherein such line objects each have the searched string as its content; operable so that the line objects if desired can be used a head item of a linked list; operable so that for each searched string and a line in the source file that contains the string, operable to create a new line object, and wherein such a line object has the line as its content; and operable to append a newly created line object to an associated linked list.

Lewak discloses a method of organizing, managing and providing interactive access to data in a database. Lewak substantially discloses the claimed subject matter of the above limitations separately by disclosing an alphabetic Name hash table that is maintained to reduce the time it takes to find the link for alphabetic name location when a new Item is added. The hash function has the property that alphabetic order is the key order. (For example, the first two letters of the name can be used as the key.) The hash value is the index into the item array for the name which gives rise to the key. Therefore when a new name is added its hash key is used to find the index at which to begin the search through the Item array's linked list. The hash key is checked for its presence in the hash table. If it exists, the index is used to compare the actual full name of the Item with the name of the Item to be added. If the new name

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is alphabetically greater than that, the search starts at that index. If the new name is less than that, the entry of the previous lower value of the key is used to get the starting index for the search. If the hash key does not exist, a new key entry is created with the new Items index as the index. The fastest hash table (ignoring balance) is an array where the index is the numeric hash key. Suppose we use the first two letters of the name as the key. (For very large numbers of Items we can increase that if necessary.) Then we use a simple function (which will need to be different for different languages), which accepts the name and returns the number. If there are 42 different values of each character (using the ASCII range from 48 through 90 for English) then using the first 2 alphanumeric characters, there are 1764 possible values of the key. So we would have a fixed size array with 1764 elements. The memory cost of this is 7,056 bytes--quite acceptable.

(Column 65, lines 9-36).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine data searching method using hash table with Ezekiel's because the alphabetic Name hash table that is maintained to reduce the time it takes to find the link for alphabetic name location when a new Item is added, such as when a new menu item of Ezekiel is added. Therefore, it would have been obvious to combine Ezekiel with Lewak to obtain the invention as specified in claims 13-17.

### ***Allowable Subject Matter***

10. Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### CONCLUSION

11. Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and Figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

12. Information regarding the status of an application may be obtained from the patent application information retrieval (PAIR) system. Status information for published application may be obtained from either Private -PAIR or Public-PAIR. Status information for unpublished applications is available through Private-PAIR only. For more information about the PAIR system, please see [pair-direct.uspto.gov](http://pair-direct.uspto.gov) web site. Should you have questions regarding access to the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Tadesse Hailu, whose telephone number is (571) 272-4051. The Examiner can normally be reached on M-F from 10:30 – 7:00 ET. If attempts to reach the Examiner by telephone are

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unsuccessful, the Examiner's supervisor, Kincaid, Kristine, can be reached at  
(571) 272-4063 Art Unit 2173 and 2174.

*Examiner Tadesse Hailu*

*Art Unit 2173 – Operator Interface*

*2/13/07*

  
**TADESSE HAILU**  
*Patent Examiner*